

A METHOD FOR TESTING CONGESTION AVOIDANCE ON HIGH SPEED NETWORKS

ABSTRACT OF THE DISCLOSURE

5

A method for testing congestion avoidance on a network by simulating transmission control protocol (TCP) streams. In one embodiment, one hundred TCP streams are initiated, wherein each TCP stream is operable to transmit data packets. A TCP stream comprises a current window size and a maximum window size. For each TCP stream, an unacknowledged traffic stream is initiated and directly tied to a referencing TCP stream and is controlled (e.g. rate limited) by the referenced TCP stream. This permits the companion unacknowledged traffic streams to be efficiently transmitted at high rates. In the event of congestion resulting in the dropping of packets from the traffic streams, each traffic stream will back off at the same rate. In one embodiment, an oversubscription factor is used to ensure network congestion causing the associated flow to decrease. The present invention provides for a method of testing congestion avoidance of a high speed network requiring only one processor.